

3.0 ALTERNATIVES AND CUMULATIVE PROJECTS

3.1 FACTORS USED IN SELECTION OF ALTERNATIVES

3.1.1 Alternatives Development and Screening Process

One of the most important aspects of the environmental review process is the identification and assessment of reasonable alternatives that have the potential for avoiding or minimizing the impacts of a proposed Project. In addition to mandating consideration of the No Project Alternative, the CEQA Guidelines (sections 15126.6(c) and 15126.6(d)) emphasize the selection of a range of reasonable alternatives and an adequate assessment of these alternatives to allow for a comparative analysis for consideration by decision-makers.

The CEQA requires consideration of a range of reasonable alternatives to the Project or Project location that: (1) could feasibly attain most of the basic project objectives; and (2) would avoid or substantially lessen any of the significant impacts of the proposed Project. An alternative cannot be eliminated simply because it is more costly or if it could impede the attainment of all Project objectives to some degree. However, the CEQA Guidelines declare that an EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote or speculative. The CEQA requires that an EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed Project.

The CEQA Guidelines require the selection of an environmentally superior alternative. The determination of an environmentally superior alternative is based on the consideration of how the alternative fulfills the Project objectives and how the alternative either reduces significant, unavoidable impacts or substantially reduces the impacts to the surrounding environment. The CEQA Guidelines (section 15126.6(e)(2)) state, in part, "If the environmentally superior alternative is the "No Project" alternative, the EIR would also identify an environmentally superior alternative among the other alternatives."

This screening analysis does not focus on relative economic factors of the alternatives (as long as they are feasible) since the CEQA Guidelines require consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may "impede to some degree the attainment of Project objectives or would be more costly."

3.1.2 Alternatives Screening Methodology

Alternatives to the proposed Project were selected based on the input from AT&T (the Applicant), the EIR study team, and the public and local jurisdictions during the EIR scoping hearings. The alternatives screening process consisted of three steps:

- **Step 1:** Define the alternatives to allow comparative evaluation.
- **Step 2:** Evaluate each alternative in consideration of one or more of the following criteria:
 - The extent to which the alternative would accomplish most of the basic goals and objectives of the Project;
 - The extent to which the alternative would avoid or lessen one or more of the identified significant environmental effects of the Project;
 - The potential feasibility of the alternative, taking into account site suitability, economic viability, availability of infrastructure, General Plan consistency, and consistency with other applicable plans and regulatory limitations; and
 - The requirement of the CEQA Guidelines to consider a “no project” alternative and to identify, under specific criteria, an “environmentally superior” alternative in addition to the “no project” alternative (CEQA Guidelines, section 15126.6(e)).
- **Step 3:** Determine suitability of the proposed alternative for full analysis in the EIR. If the alternative is unsuitable, eliminate it, with appropriate justification, from further consideration.

Feasible alternatives that did not clearly offer the potential to reduce significant environmental impacts and infeasible alternatives were removed from further analysis. In the final phase of the screening analysis, the environmental advantages and disadvantages of the remaining alternatives were carefully weighed with respect to potential for overall environmental advantage, technical feasibility, and consistency with Project and public objectives.

If an alternative clearly does not provide any environmental advantages as compared to the proposed Project, it is eliminated from further consideration. At the screening stage, it is not possible to evaluate potential impacts of the alternatives or the proposed Project

with absolute certainty. However, it is possible to identify elements of the proposed Project that are likely to be the sources of impact. A preliminary assessment of potential significant effects of the proposed Project resulted in identification of the following impacts:

- Biological Resources;
- Commercial and Recreational Fishing;
- Geology and Soils;
- Hydrology and Water Quality;
- Hazards and Hazardous Materials;
- Air Quality;
- Traffic and Transportation;
- Noise;
- Cultural Resources; and
- Aesthetics/Visual Resources.

For the screening analysis, the technical and regulatory feasibility of various potential alternatives was assessed at a general level. Specific feasibility analyses are not needed for this purpose. The assessment of feasibility was directed toward reverse reason, that is, an attempt was made to identify anything about the alternative that would be infeasible on either technical or regulatory grounds. The CEQA does not require elimination of a potential alternative based on cost of construction and operation/maintenance. For the proposed Project, those issues relate to:

- Air Quality;
- Biological Resources;
- Commercial and Recreational Fishing;
- Marine Cultural Resources;
- Geologic Resources;
- Hydrology and Water Quality; and
- Noise

3.1.3 Summary of Screening Results

Potential alternatives were reviewed against the above criteria. A number of alternatives were eliminated based on the infeasibility of cable routing and landing locations, and the potential for increased impacts related to using satellites for signal transmission instead of the fiber optic cable. Those alternatives that were found to be technically feasible and consistent with the AT&T's objectives were reviewed to determine if the alternative had the potential to reduce the environmental impacts of the proposed Project.

Table 3-1 represents the evaluation and selection of potential alternatives to be addressed in this EIR. Those listed in the first column have been eliminated from further consideration (see rationale in Section 3.2, Alternatives Eliminated from Full Evaluation). Those in the second column are evaluated in detail in Section 3.3, Alternatives Evaluated in EIR and are described in detail for each resource area in Section 4.0, Environmental Analysis.

Table 3-1. Summary of Alternative Screening Results

Alternatives Eliminated from Consideration	Alternatives Evaluated in this EIR
Alternative Landing Sites	No Project Alternative
Direct Lay Route	Cable Re-Route - Maximum Burial
Satellite Source	

3.2 ALTERNATIVES ELIMINATED FROM FULL EVALUATION

A wide range of alternatives were considered in two previous EIRs completed for cable projects landing at the Montaña de Oro landing site: the MFS Globenet/Worldcom EIR (County of San Luis Obispo 2000) and the AT&T China-US EIR (SAIC 2001). The MFS Globenet/Worldcom EIR contained three alternative landing sites or offshore routes in the Alternatives analysis, including: (1) Lucia Canyon landing site, (2) Southern Route, and (3) Chevron - Estero landing site. The Lucia Canyon and Southern Route alternatives were found to be inferior to the Montaña de Oro landing site due to substantially increased impacts to biological, geologic and air quality resources associated with each alternative. The Chevron landing site at the former Estero Marine Terminal was considered a potentially viable alternative. Chevron subsequently withdrew its application to the County of San Luis Obispo for development of the Estero Marine Terminal as a cable landing site. Additionally, the MFS Globenet/Worldcom EIR addressed a conceptual cable conduit consisting of a 12- to 24-inch pipe (31 to 61 centimeters [cm]) extending offshore to a water depth of 6,000 feet (ft) (1,830 meters [m]), or approximately 55 miles (89 kilometers [km]) offshore. This alternative was

determined to have significant unavoidable impacts to marine water quality from turbidity caused during the construction of the conduit system.

The AT&T China-US EIR considered three alternative landing sites and corresponding offshore cable routes in the EIR's Alternatives analysis: (1) Islay Creek, (2) Morro Beach, and (3) Chevron-Estero. The Islay Creek and Morro Beach sites were found to result in greater water quality and biological impacts associated with construction of new facilities at the onshore landing site. As discussed above, Chevron withdrew its application for use of the existing marine terminal site as a cable landing site.

In addition, a direct lay route was considered. That alternative would not require burial of the cable, but was also eliminated from further consideration due to the potential impacts to marine mammals and to the potential hazards to commercial fishing operations.

The use of satellites to transmit the signals *in lieu* of using a fiber optic cable system was also considered during the alternative screening process. That alternative was eliminated due to the reduced security associated with satellite signals, and due to the requirement of multiple satellites that would be needed to support the volume of signals that a single fiber optic cable can handle. Servicing and repairs, as well as initial placement of those satellites, would require multiple launches of rockets, resulting in an increase in impacts compared to the proposed Project.

3.3 ALTERNATIVES EVALUATED IN EIR

3.3.1 No Project/Action or Postponed Project/Action

Under this alternative, the Project would not proceed, resulting in none of the Project goals and objectives being met. No new cables would be installed offshore or onshore at the Montaña de Oro landing site. Because no construction or operation-associated impacts would occur, the No Project Alternative is the environmentally superior alternative; however, as noted in CEQA section 15126.6(e)(2), if the No Project Alternative is determined to be the environmentally superior alternative, the EIR must also identify another environmentally superior alternative among the other alternatives.

Required Agency Approvals

No permits or regulatory approvals would be required under this alternative.

3.3.2 Cable Re-route/Maximum Burial Alternative

AT&T has developed a relatively detailed seafloor habitat map within the proposed fiber optic cable corridor and has proposed an alternative route that avoids most, but not all, of the rock features. This alternative route would minimize the area of rocky habitat crossed by the cable, which, in turn, would allow the maximum length of the cable to be buried within water depths of up to 6,000 ft (1,830 m). Outcropping rock was identified at kilometer posts (KP) 8.0-8.1, 56.8-57.7, 76.0-76.7, and 83.3-88.5. For example, the area between KP 8.0 and 8.1 would be re-routed either to the north or south to avoid hard bottom outcrops on the seafloor. Only limited geologic and Remotely Operated Vehicle (ROV) survey information is available for the areas north and south of the proposed route outside of the surveyed corridor. Because the cable would be re-routed, this alternative would require up to 1.9 miles (3.1 km) of additional cable between existing KP 8.0 and 8.1. Additional cable would also be required to avoid rock features between the previously listed KPs. However, the total length of additional cable at each re-route cannot be determined at this time due to the limitations of the existing route-specific geologic data. This alternative would reduce or eliminate potential impacts of the cable crossing rocky habitat and affecting the sensitive habitat and associated biota; however, realignment to facilitate maximum burial could conflict with cable spacing regulations.

Required Agency Approvals

Selection of this alternative would require the same permits and authorizations as presented in Section 1.4, Permits, Approvals and Regulatory Requirements.

3.4 COMPARISON OF PROPOSED PROJECT AND ALTERNATIVES

The CEQA Guidelines (section 15126.6 (d)) require that an EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed Project. The CEQA Guidelines (section 15126.6 (e)(2)) further state, that "If the environmentally superior alternative is the 'No Project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. Table 3-2, Summary of Environmental Impacts for Proposed Project and Alternatives, provides a comparison of the proposed Project with each of the Alternatives evaluated for each resource area where potential impacts were identified in Section 4.0, Environmental Analysis, including the No Project Alternative.

3.5 CUMULATIVE RELATED FUTURE PROJECTS

This section lists and discusses future projects near the location of the proposed Project that were considered in assessing the potential cumulative effects. A figure that shows the location of each of the cumulative projects is also provided.

Section 15130 of the CEQA Guidelines requires that an EIR discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in section 15065(c). Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. As defined in section 15355 of the CEQA Guidelines, a cumulative impact consists of an impact, which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.

3.5.1 Boundary of Cumulative Projects Study Area

For the proposed Project, and as shown in Figure 3-1, the cumulative projects study area includes the community of Los Osos, the rural area along Los Osos Valley Road between Los Osos and the city of San Luis Obispo, the city of Morro Bay, Montaña de Oro and Morro Bay State Parks, and the coastline between Point Buchon and Point Estero extending offshore to the edge of the outer continental shelf to a water depth of 6,000 ft (1,830 m). The study area was defined for projects in the watershed areas along the onshore cable route, and projects with the potential to affect coastal waters within Estero Bay.

Table 3-2. Summary of Environmental Impacts for Proposed Project and Alternatives

Impact Class I = Significant adverse impact that remains significant after mitigation.
 II = Significant adverse impact that can be eliminated or reduced below an issue's significance criteria.
 III = Adverse impact that does not meet or exceed an issue's significance criteria.
 IV = Beneficial impact.

Impact No.	Impact Description	Proposed Project	No Project Alternative	Maximum Burial/ Re-route Alternative
Section 4.1 - Aesthetics/Visual Resources				
AVR-1	Potential light and glare during construction activities at the Sandspit Beach parking lot	II	III	II
AVR-2	Vegetation trimming and removal during cable pulling along onshore cable conduit	II	III	II
Section 4.2 - Air Quality				
AQ-1	Vessels used for construction and decommissioning could temporarily exceed daily emission thresholds for ozone precursors within the APCD	II	III	II
Section 4.3 - Biological Resources				
TERBIO-1	Impacts to nesting activities of migratory birds and raptors	II	III	II
TERBIO-2	Impacts to special status and sensitive terrestrial plant and animal species	II	III	II

Table 3-2. (Continued)

Impact No.	Impact Description	Proposed Project	No Project Alternative	Maximum Burial/ Re-route Alternative
TERBIO-3	Degradation of natural habitats	II	III	II
MARBIO-1	Potential rock substrate disturbance during pre-lay grapnel survey	II	III	II
MARBIO-2	Impacts to rock substrate during vessel anchoring and nearshore cable placement	II	III	II
MARBIO-3	Damage to rock substrate during cable laying	II	III	II
MARBIO-4	Marine mammal-vessel interaction during cable laying	II	III	II
MARBIO-5	Incidental and accidental vessel discharges	II	III	II
MARBIO-6	Damage to rock substrate during maintenance and repairs	II	III	II
Section 4.5 - Cultural Resources				
CR-1	Onshore excavation-related cultural resource impacts	II	III	II
CR-2	Exposure or damage to onshore archaeological resources or human remains	II	III	II
CR-3	Construction activities within areas of previously-recorded onshore cultural resources	II	III	II

Table 3-2. (Continued)

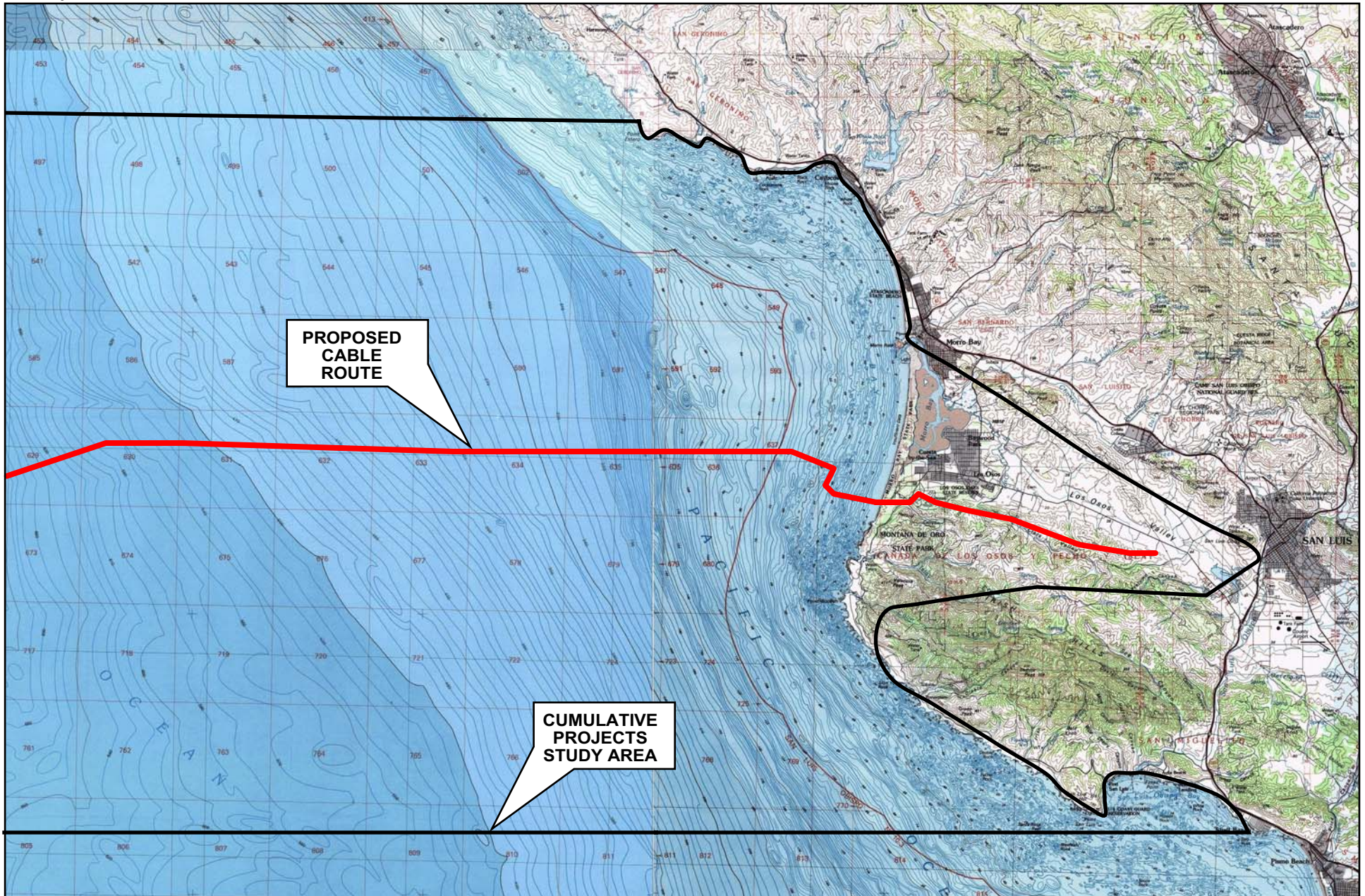
Impact No.	Impact Description	Proposed Project	No Project Alternative	Maximum Burial/ Re-route Alternative
CR-4	Damage to previously unknown or unrecorded offshore cultural resource or shipwreck	II	III	II
Section 4.6 - Geology, Soils, Faults and Mineral Resources				
GEO-1	Erosion impacts during onshore construction activities	II	I	II
Section 4.7 - Hydrology and Water Quality				
WQ-1	Erosion and sedimentation impacts during construction activities	II	I	II
WQ-2	Effects of petroleum discharge during construction activities	II	III	II
WQ-3	Discharge of contaminated water during pipe preparation activities	II	III	II
Section 4.8 - Land Use and Recreation				
REC-1	Loss of Recreational Parking at the Sandspit Beach parking lot	II	III	II
Section 4.10 Noise				
NOI-1	Project activities will exceed NOAA-specified noise levels for marine mammal harassment	II	III	II

Table 3-2. (Continued)

Impact No.	Impact Description	Proposed Project	No Project Alternative	Maximum Burial/ Re-route Alternative
Section 4.11 - System Safety/Risk of Upset				
SYS-1	Accidental petroleum discharge from onshore equipment or vehicles	II	III	II
SYS-2	Incidental or accidental discharge from Project vessel	II	III	II

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3.5.2 Description of Cumulative Projects

Presented below are brief descriptions of each of the projects included in the cumulative projects analysis, based on information obtained from the county of San Luis Obispo, the city of Morro Bay, California State Parks, and the CSLC. The cumulative projects list is limited to projects that are considered reasonably foreseeable because applications have been submitted, permits have been issued, or a project is under construction. Figure 3-2 shows the location of each of the projects discussed below.

Morosin Minor Use Permit

An application has been submitted to the county of San Luis Obispo for a proposed equestrian facility and garage addition (DRC2007-00120). The site address is 2300 Clark Valley Road in Los Osos. The project application is currently on hold pending receipt of requested information. This project is located along one of the access roads to be utilized by AT&T during the installation of the onshore cable.

Highland Ranch Ag Cluster

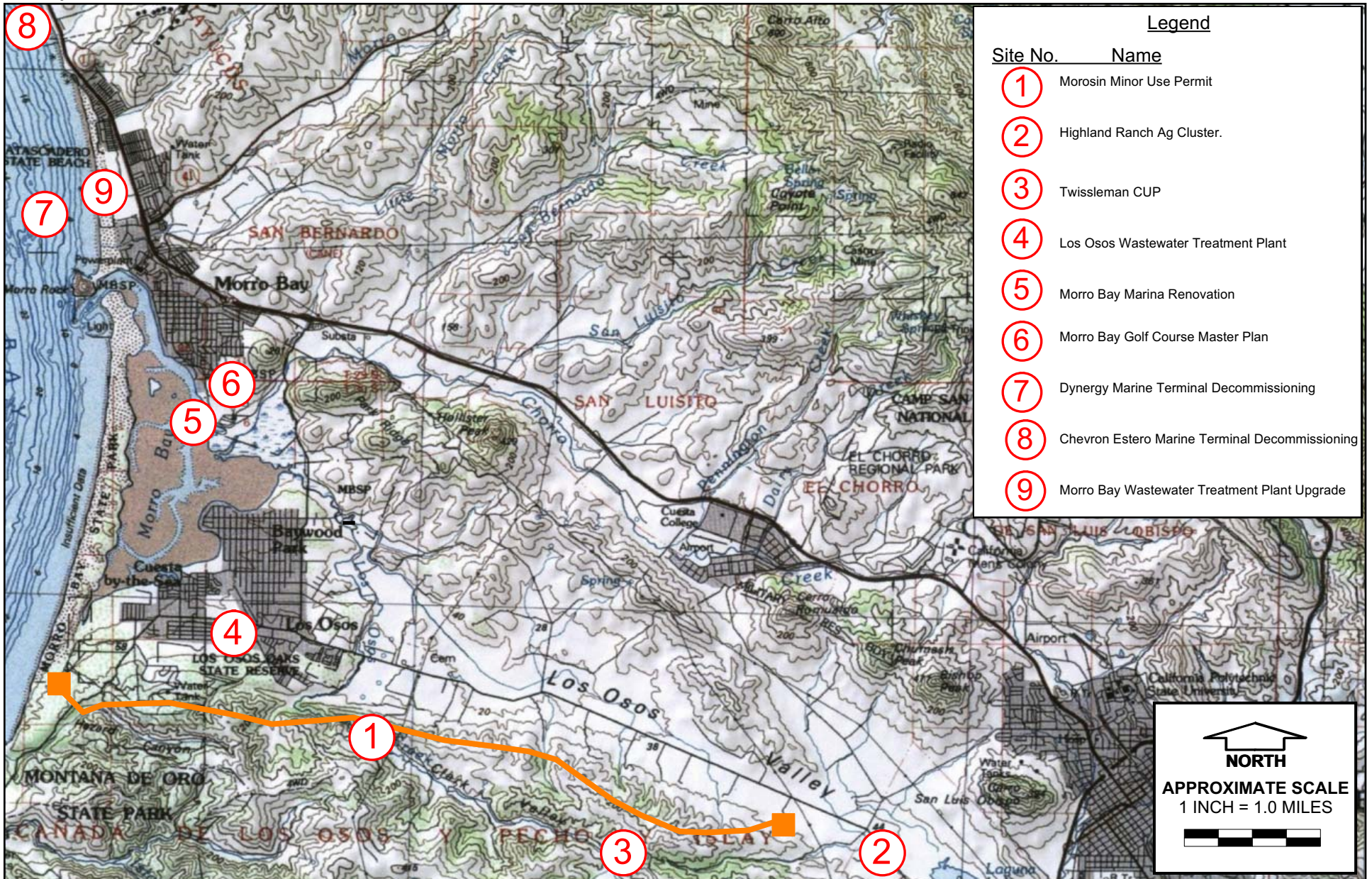
This project site is located on the south side of Los Osos Valley Road approximately 1 mile (1.6 km) east of Foothill Boulevard. The applicant is considering a project with approximately 20 residential lots. According to the county of San Luis Obispo, the applicant has completed a pre-application meeting with the county but an application has not been submitted. This project is located near the AT&T cable facility along Los Osos Valley Road.

Twissleman Conditional Use Permit

This project involves construction of an access road to 14 legal lots on approximately 1,300 acres (527 hectares) in the Irish Hills west of San Luis Obispo, and south of the onshore cable conduit route. Access to this site is from Perfumo Canyon Road. Portions of this project may drain into the Hazard Canyon watershed, which includes portions of the onshore cable conduit route.

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Los Osos Wastewater Treatment Plant

The Los Osos Wastewater Treatment Plant (WWTP) project is proposed to provide wastewater collection and treatment for the community of Los Osos, which currently utilizes individual septic systems. The project is undergoing engineering analysis and environmental review. The location of the WWTP is a controversial issue associated with this project. The WWTP project review is considering a wide range of alternative system designs and possible WWTP locations.

Morro Bay Marina Renovation Project

The city of Morro Bay is proposing the renovation of the existing marina, improvement of ingress and egress within the waterway, and enhancement of existing onshore facilities. This project consists of: removing and replacing the existing docks and piers with pile-guided floating docks and piers that meet American with Disabilities Act requirements; dredging the marina basin and entrance channel to a depth of -12 ft Mean Lower Low Water (MLLW) to facilitate boat access; installing steel sheet pile walls along the southern and northern shorelines to reduce erosion and sediment deposition into the marina basin; removing the existing asphalt and resurfacing the parking lot maximizing available parking; adding a shower and restroom facility; improving onshore lighting; and widening the existing entrance. The project is expected to take approximately 18 months to complete and it is scheduled to be initiated in the summer of 2010 following acquisition of all permits and authorizations. A Draft EIR was completed in August 2008 and the Final EIR was completed in October 2008. The EIR is awaiting certification by the city of Morro Bay.

Morro Bay State Park Golf Course Redesign

The Master Plan would be implemented over a 20-year period and includes: creation of 15 new sand bunkers; modification to five existing bunkers; the creation of grass mounds; 3,680 linear ft (1,122 m) of golf cart path reconstruction; construction of 11,160 linear ft (3,404 m) of new golf cart path; construction of a black, chain-link fence adjacent to Tee Box 6; driving range reorientation; installation of a new 50 ft- (15 m-) tall safety net; the replacement of two restrooms; tee expansion; the removal of 385 diseased or hazardous trees and the planting of 650 California native and Mediterranean climate trees.

The purpose of these modifications is to: address course layout problems that result in play interference; re-orient the driving range away from existing neighboring houses;

provide other safety modifications; and respond to the continual die-off of mature Monterey pine trees due to age and disease. In addition, the Parks Division proposes to continue storing up to 15,000 cubic yards (CY) (11,469 cubic meters [m³]) of soil within existing soil stockpiling areas on the project site. Implementation of these improvements would result in 104,040 square feet (ft²) (2.4 acres) of site disturbance. This project is ongoing.

Dynergy Morro Bay Power Plant Marine Terminal Decommissioning Project

This proposed project involves the decommissioning of the existing Dynergy Energy Morro Bay, LLC (Dynergy) Marine Terminal. This marine terminal was used to offload coastal oil tankers supplying the Morro Bay Power Plant (MBPP) with fuel oil for its power generation operations. Originally constructed by Pacific Gas and Electric Company (PG&E) and placed in operation in 1954, the marine terminal was last operated in November 1990. The existing marine terminal facilities consist of a 16 and a 24 inch- (41 and 61 cm) diameter submarine pipeline, a pipeline marker buoy, onshore concrete pipeline anchors (thrust blocks), maintenance shed, onshore fuel oil sampling equipment, and onshore cathodic protection system. The entire tanker berth mooring system components and the submarine loading hoses have been removed. The operational status of the marine terminal's fuel oil pipelines was changed to "caretaker" status (inactive facility with decommissioning application pending) by the CSLC in May 1997 and by the USCG in August 1997, subsequent to the MBPP operations being converted from fuel oil to natural gas via terrestrial pipeline routes. The proposed marine terminal decommissioning will be accomplished by removing most of the marine terminal facilities in their entirety while abandoning certain portions of the facility pipelines in-place.

An application for this project was filed with the CSLC by the MBPP's previous owner, Duke Energy. Since then, the MBPP was sold to Dynergy and the CSLC is currently working with Dynergy on a change in lessee for the marine terminal state lands lease. Once this transfer is completed, CSLC will initiate processing of the application and environmental review of the proposed decommissioning project.

Chevron Estero Marine Terminal Decommissioning Project

Chevron holds a CSLC lease for its marine terminal facilities north of Morro Bay. The Chevron Estero Marine Terminal is currently undergoing decommissioning of onshore components. Chevron's state lands lease is currently in holdover status pending

1 submittal of an application from Chevron for the decommissioning of the offshore
2 facilities.

3 **Morro Bay Wastewater Treatment Plant Upgrade**

4 The city of Morro Bay and Cayucos Sanitary District, owners of the Morro Bay
5 Wastewater Treatment Plant, have adopted an eight-year schedule for upgrading and
6 rehabilitating the treatment plant. Currently the city and district are working on the
7 development of the Facility Master Plan for the Morro Bay/Cayucos Wastewater
8 Treatment Plant that will provide a comprehensive planning document to treat
9 wastewater flows for a 20-year planning period.

10 The scope of work for the Facility Master Plan will include the evaluation of the existing
11 treatment plant, existing and projected wastewater flows and loadings, the steps
12 necessary to rehabilitate and modernize the existing plant, a detailed evaluation of the
13 wastewater treatment alternatives (secondary, partial tertiary, or full tertiary), and a
14 recommended upgrade alternative that provides reliable long-term compliance with
15 National Pollutant Discharge Elimination System (NPDES) requirements and the
16 respective agencies' adopted planning priorities. The completed upgrade project will
17 result in a plant with increased secondary or tertiary capacity, and the modernization
18 and rehabilitation of the remaining plant.

19 **3.5.3 Description of Cumulative Environment**

20 Cumulative environmental impacts associated with the proposed Project and other
21 reasonably foreseeable projects in the area are analyzed separately for each resource
22 area in Section 4.0, Environmental Analysis. Those sections consider construction and
23 operational impacts associated with the proposed Project in relation to other planned or
24 recently completed projects in the area, as well as existing conditions in the area.

25 Provided below are brief descriptions of the environmental setting for those resource
26 areas having the greatest potential for cumulative impacts. More detailed descriptions
27 of the environmental setting for each resource area are provided in Section 4.0,
28 Environmental Analysis.

29 **Air Quality**

30 The air quality cumulative environment is the South Central Coast Air Basin, which is
31 under the jurisdiction of the San Luis Obispo County Air Pollution Control District
32 (SLOAPCD). The U.S. Environmental Protection Agency has designated San Luis

Obispo County as an attainment area for ozone, particulate matter, nitrogen dioxide, sulfur dioxide, and carbon monoxide. The California Air Resources Board has designated San Luis Obispo County as non-attainment for particulate matter (PM₁₀ and PM_{2.5}), and ozone (1-hour standard). These criteria air pollutants are discussed in greater detail in Section 4.2, Air Quality.

Under AB 32, California's Global Warming Solutions Act, the California Air Resources Board (CARB) was required to adopt by January 1, 2008, a statewide greenhouse gas (GHG) emissions limit equivalent to the statewide greenhouse gas emissions levels in 1990, which must be achieved by 2020. By January 1, 2011, the CARB is required to adopt rules and regulations that shall become operative January 1, 2012, to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 also requires the CARB to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism that it adopts. The SLOAPCD currently does not provide any guidance on assessing the cumulative impact of GHG emissions.

Biological Resources

The cumulative environment for biological resources includes the Irish Hills, Montaña de Oro State Park, and the Estero Bay area extending to the 6,000-ft (1,830 m) water depth. Habitats affected by the proposed Project and other cumulative projects include: agricultural lands, annual grassland, oak woodland, coastal scrub, freshwater emergent marsh, and riparian scrub communities. These habitats provide suitable habitat for special status plants and wildlife. Marine habitats within the cumulative project area include sedimentary, low- and high-relief rocky substrates. Special status species within the marine area include protected mammals and birds and sensitive resources such as kelp and seagrass beds.

Commercial and Recreational Fishing

The cumulative environment for commercial and recreational fishing includes all fisheries from the shoreline to a depth of 6,000 ft (1,830 m) between Point Estero and Port San Luis assuming that most commercial and recreational fishers utilizing the study area will be coming from either Morro Bay or Port San Luis.

Cultural Resources

The cumulative environment for cultural resources considers a broad cultural and regional system of which the local resources are a part. The onshore cumulative environment context for the cultural resource analysis includes the area potentially affected within the existing ridge route cable corridor and the various access routes to that area, including the Sandspit Beach parking lot. The offshore cumulative area consists of the marine waters off San Luis Obispo County between Point Buchon and Point Estero. Offshore, the resources include recorded shipwrecks and other submerged cultural resources within a region that extends from the shoreline to a water depth of 6,000 ft (1,830 m).

Adverse effects on archaeological resources from planned, under construction, and completed projects in the area will be addressed through mitigation on the individual project basis. As future applications for individual projects are reviewed, the evaluation of impacts will be included in the individual project-level environmental review. Provided that the mitigations described in those assessments and those that are recommended for this project are implemented, the proposed Project's contribution to cumulative impacts to cultural resources would not be significant.

Geology, Soils, Mineral and Paleontological Resources

The cumulative environment for geology, soils, and mineral resources consists of the Irish Hills, Los Osos Valley, and the continental shelf extending offshore from the proposed landing site. The San Luis Obispo/Morro Bay area is in the southern portion of the Coast Ranges Geomorphic Province, which is characterized by northwest-trending mountains and valleys composed of Mesozoic and Cenozoic marine and terrestrial sedimentary deposits underlain by Franciscan formation metamorphic rocks and/or granitic rocks of the Salinian Block.

The geographic context for the analysis of impacts resulting from geologic hazards generally is site-specific, rather than cumulative in nature, because each project site has a different set of geologic considerations that would be subject to uniform site development and construction standards.

1 The cumulative environment for paleontological resources considers a broad regional
2 system of which the local resources are a part. The cumulative context for the
3 paleontological resources analysis for the proposed Project includes the Coast Range
4 geologic province. Development along the Coast Range is assumed to include
5 thousands of acres of land.

6 **Hydrology and Water Quality**

7 The cumulative environment for hydrology and water quality includes the watersheds of
8 Los Osos Creek, Hazard Canyon, the Morro Bay Estuary, Estero Bay, and marine
9 waters from Point Buchon to Point Estero and extending offshore to a depth of 6,000 ft
10 (1,830 m) which is considered the edge of the continental shelf.

11 **Noise**

12 The onshore portion of the proposed Project would be constructed primarily through
13 rural areas of unincorporated San Luis Obispo County, including Montaña de Oro State
14 Park. Scattered residences lie along the existing cable conduit system. Sensitive noise
15 receptors within the cumulative environment include rural residences and visitors to
16 Montaña de Oro State Park. Offshore sensitive receptors include marine mammals,
17 sea turtles, and fisheries.